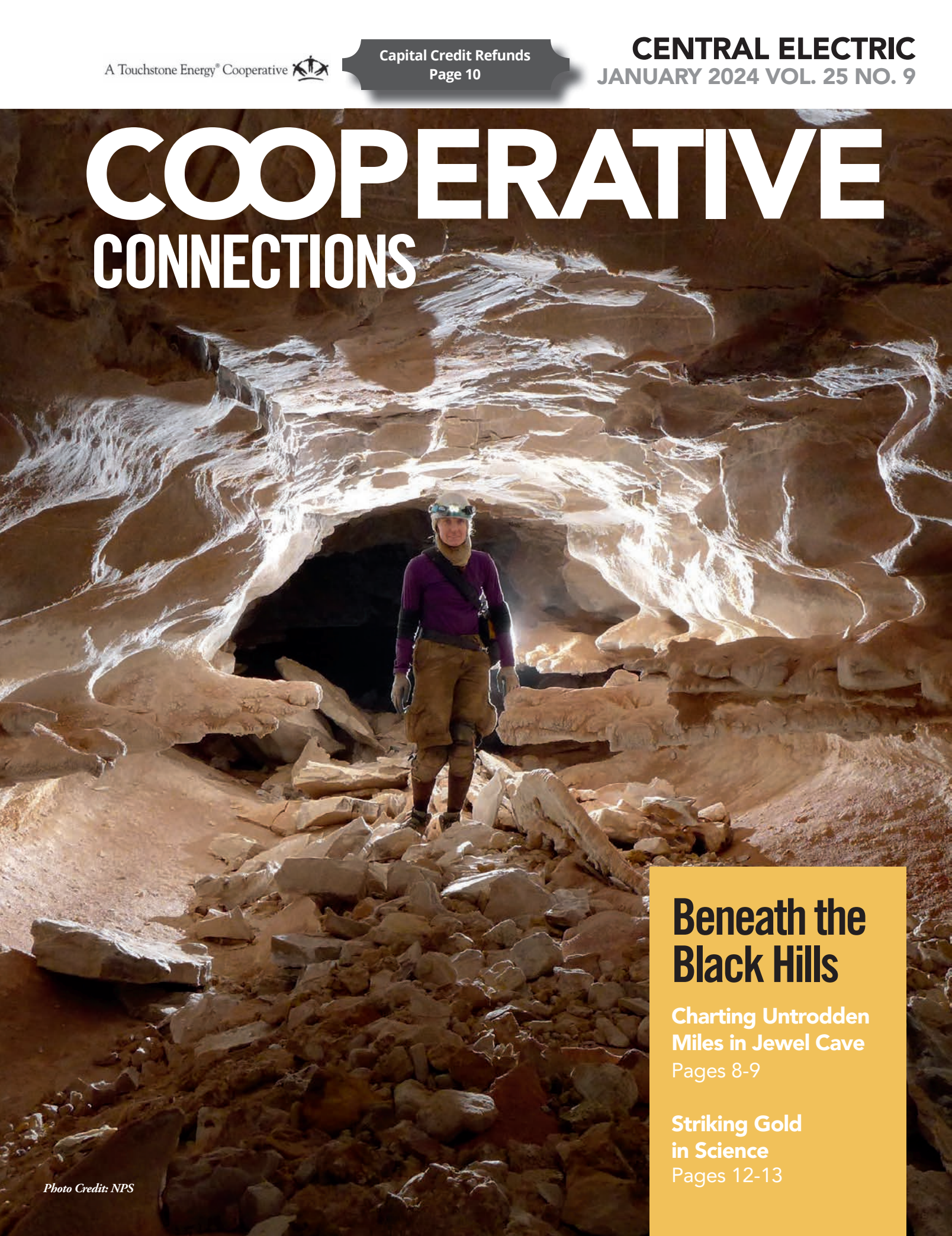




COOPERATIVE CONNECTIONS



Beneath the Black Hills

**Charting Untrodden
Miles in Jewel Cave**
Pages 8-9

**Striking Gold
in Science**
Pages 12-13

The Electric System & Rates



Ken Schlimgen
General Manager

Electricity plays an essential role in everyday life, and this time of year it makes the holidays more enjoyable. We depend on it to keep us comfortable, entertained, and safe, and because most technology uses electricity, it also helps us to be more efficient. If the power goes out, even briefly, our lives can be disrupted.

Recently, I was approached by a friend at the grocery store who is also a member of our cooperative. During our conversation, he asked questions about our electric system, the 2024 electric rate increase, facility charges and more. If I may, I would like to share parts of our conversation.

The system that delivers your electricity is often described as the most complex machine in the world. We all use different amounts of electricity throughout the day, so the supply and demand for electricity is constantly changing.

Everything that makes up our electric delivery system is aging, and we are strategically replacing it at a pace to maintain reliability, increase capacity and, to our best efforts, maintain affordability.

Inflation has impacted our everyday purchases, like my grocery list, and the cost of your cooperative's materials. Interest rates and the cost to

hire and retain a quality workforce have increased. The biggest hit to your cooperative for 2024 is the increase in wholesale power costs, which can be tied back to inflation, interest rates and labor. These are the main factors that impact Central Electric's operating costs, and ultimately the electric rates. Some factors we can manage, while other factors are beyond our control.

There are two parts to most electric bills. They are the facility charge and the energy or kilowatt hour (kWh) charge. Larger customers also have a demand charge, which is a more complicated topic I can try to explain in a future article.

The facility charge is meant to cover the costs associated with delivering electricity to your meter. This includes vehicles, tools, materials, labor and all the maintenance necessary to keep the lights on, regardless of the amount of electricity needed.

Unfortunately, our service area is sparsely populated. We have the third lowest meter density in our state at 1.6 meters for every mile of line that we maintain. If there were more meters in every mile of line, more people would share the costs and the facility charge could be lower. Our low density puts upward pressure on the facility charge applied to every bill.

The other component of your monthly bill is the kWh charge. This charge is intended to cover the cost of purchasing the electricity you consume. You've likely noticed the amount of energy you use can vary from month to month and is typically impacted by weather and your activities.

Energy consumption is an area that you have some control over. You can lower your monthly bill by using energy-efficient equipment, adjusting thermostats and by simply turning things off when they are not needed.

Please know that Central Electric is doing what it can to control internal costs and influence what we pay for wholesale power. We're here to help you, too. Visit our website or contact us for advice on how to save energy at home.

Have a joyous holiday season and until next month – be safe!

Attention Teachers and Parents of Juniors and Seniors!

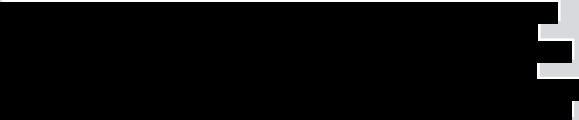
Feb. 1 is the deadline for high school juniors to apply for the Youth Tour trip to Washington, D.C. It's also the deadline for seniors to apply for scholarships. For more information, visit www.centralec.coop and click on Member Programs.

CENTRAL ELECTRIC
COOPERATIVE
CONNECTIONS

(USPS 018-963)

Board of Directors

Aurora County - Duane Wolbrink, President
Brule County - Bradee Pazour
Buffalo County - Donita Loudner, SDREA Director
Davison County - Jeff Gustafson
Hanson County - Mark Hofer - Secretary & NRECA Director
Jerauld County - Mark Reindl, Treasurer
Miner County - Robert Banks - Director
Sanborn County - Todd VanWalleghen, Vice President
Director-At-Large - Merl Bechen



Subscription information: Central Electric Cooperative members devote 50 cents of each monthly electric payments for a subscription. Non-member subscriptions are available for \$12 annually. Periodicals Postage Paid at Central Electric Cooperative, PO Box 850, Mitchell, SD 57301, and additional mailing offices.

Postmaster: Please send address changes to Central Electric Cooperative, PO Box 850, Mitchell, SD 57301. Address all other correspondence to: Cooperative Connections, PO Box 850, Mitchell, SD 57301 Telephone: (605)996-7516; Fax: (605) 996-0869; e-mail: cec@centralelec.coop; website: www.centralelec.coop.

Contact Us

Office Hours: Monday - Friday 8 a.m. - 4:30 p.m.
Phone: 1-800-477-2892 or 1-605-996-7516
Website: www.centralelec.coop

Our Mission

Provide reliable energy and services with a commitment to safety and member satisfaction.

Non-Discrimination Statement:

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. USDA is an equal opportunity provider, employer and lender. Central Electric Cooperative is an equal opportunity provider, employer and lender.

Board Meeting Summary

The board of directors met Oct. 16, 2023, at Central Electric Cooperative's headquarters for the regular board meeting. They reviewed reports by management including details on operations, member services, communications, service department and financials.

BOARD REPORT

General Manager Schlimgen updated the board of directors on the East River Electric Managers Advisory Committee, Basin Electric updates, rate policies and other activities.

Schlimgen shared a Rural Electric Economic Development (REED) loan application from the Mitchell Rodeo Foundation for board consideration.

Schlimgen explained the Distributed Energy System Interconnection program to be launched in 2024.

Director Loudner reported on S.D. Rural Electric Association activities. Discussion followed.

Director Wolbrink updated the Board on East River Electric Power Cooperative activities. Discussion followed.

The Board reviewed monthly director expenses and the third quarter attorney fees.

BOARD ACTION

The board considered or acted upon the following:

- A motion was made and seconded to support a REED loan request for the Mitchell Rodeo Foundation. Motion carried.
- A motion was made and seconded to support a member loan application for geothermal system replacement. Motion carried.
- A motion was made and seconded to approve September 10, 2024, for the next annual meeting date. Motion carried.
- A motion was made and seconded to adopt proposed changes to Rate Policy 869 - Large Commercial TransCanada. Motion carried.
- A motion was made and seconded to adopt proposed changes to Rate Policy 872 - Large Commercial POET. Motion carried.
- A motion was made and seconded to approve and pay the third quarter legal fees. Motion carried.

The annual work plan and budget meeting was scheduled for Nov. 13. The regular board meeting was scheduled for Nov. 20. There being no further business, the meeting was adjourned.

FINANCIAL REPORT	YEAR TO DATE OCT. 2022	YEAR TO DATE OCT. 2023
Kilowatt Hour (kWh) Sales	287,485,127 kWh	283,679,794 kWh
Electric Revenues	\$ 28,680,381	\$ 29,273,306
Total Cost of Service	\$ 27,435,008	\$ 29,065,570
Operating Margins	\$ 1,245,372	\$ 207,736

January is National Radon Action Month

Radon is a Natural Danger

About one in 15 homes in the U.S. has radon levels at or above the the EPA action level, according to the National Cancer Institute. You can't see or smell radon, and scientists estimate 20,000 lung cancer deaths in the U.S. each year are attributed to it.

Radon is produced from a natural breakdown of uranium in soil, rock and water. It enters homes, offices, schools and other buildings through cracks in floors and walls, construction joints or gaps around service pipes, electrical wires and sump pits. The Environmental Protection Agency reports elevated levels of radon gas have been measured in every state and estimates nearly one out of every 15 homes in America has elevated radon levels.

People who breathe in these radioactive particles, swallow water with high radon levels or are exposed to radon for a long period of time are susceptible to lung damage and lung cancer. Smokers who are exposed to elevated levels of radon gas have a 10 times higher risk of developing lung cancer, according to the Centers for Disease Prevention and Control.

It may take years before health problems appear. Your chances of getting lung cancer from radon depend mostly on:

- How much radon is in your home
- Where you spend most of your time (the main living and sleeping areas)
- The amount of time you spend in your home
- Whether you are a smoker or have ever smoked

Test Your Home

Old homes, new homes, homes with basements and homes without basements can have radon problems. Testing is the only way to determine how much radon is present.

Consider hiring a professional tester. Short-term (2-90 day) and long-term (more than 90-day) test kits are available, with the long-term kit producing more accurate results. The EPA website can help you find a radon test kit or measurement and mitigation professional near you. Do-it-yourself test kits also are available at many local hardware stores.

No level of radon exposure is considered completely safe, however the EPA only recommends reducing radon levels in your home if your long-term exposure averages four picocuries

per liter (pCi/L) or higher. A pCi is a measure of the rate of radioactive decay of radon gas. This decay causes radioactive particles that can get trapped in your lungs when you breathe.

Reduce Radon Gas in Your Home

The American Cancer Society says a variety of methods can be used to reduce radon gas levels in your home, including sealing cracks in floors and walls and increasing ventilation through sub-slab depressurization using pipes and fans.

The EPA recommends using a state or nationally certified contractor, because lowering high radon levels often requires technical expertise and special skills. Two agencies have set the standard for participants seeking certification:

- The American Association of Radon Scientists and Technologists
- National Radon Safety Board

Always test again after the work is finished and then every two years. The U.S. Environmental Protection Agency has designated January as National Radon Action Month, a time when health agencies across the country urge all Americans to have their homes tested for radon.



Don't Plant Trees Near Power Lines

Annette Tschetter, Age 9

Annette Tschetter instructs readers to not plant trees near power lines. Annette is the daughter of Ryan and Elaine Tschetter from Revillo, S.D., members of Whetstone Valley Electric.

Kids, send your drawing with an electrical safety tip to your local electric cooperative (address found on Page 3). If your poster is published, you'll receive a prize. All entries must include your name, age, mailing address and the names of your parents. Colored drawings are encouraged.

SOUPS & STEWS

PUMPKIN APPLE SOUP

Ingredients:

3 tbsps. butter
1 cup finely chopped onion
2 tps. pumpkin pie spice
1 tsp. ground ginger
1 can (15 ounces) pumpkin
1 cup chunky applesauce
3 1/2 cups chicken broth
3/4 cup heavy cream

Method

Melt butter in large saucepan on medium heat. Add onion; cook and stir 5 minutes or until softened. Stir in pumpkin pie spice and ginger.

Stir in pumpkin, applesauce and broth until well blended and smooth. Bring to boil, stirring occasionally. Reduce heat to low; simmer 5 minutes. Remove from heat. (If a smoother soup is desired, place mixture in batches in blender container; cover and blend until smooth.) Stir in cream. Heat gently before serving, if necessary.

McCormick.com

CREAMY CHICKEN NOODLE STEW

Ingredients:

1/3 cup butter, cubed
1 med. carrot, shredded
1 celery rib, finely chopped
1/3 cup all-purpose flour
1 carton (32 oz) chicken broth
1 cup whole milk
1 cup uncooked kluski noodles or other egg noodles
2 cups cubed cooked chicken
1 1/2 cups shredded cheddar cheese
1/4 tsp. salt
1/4 tsp. pepper

Method

In a large saucepan, heat butter over medium high heat; saute carrot and celery until tender, 3 to 5 minutes. Stir in flour until blended; gradually add the broth and milk. Bring to a boil, stirring constantly. Cook and stir until thickened, 1-2 minutes. Stir in the noodles. Reduce heat; simmer uncovered, until noodles are al dente, 8-10 minutes, stirring occasionally. Add the chicken, salt and pepper. Cook and stir until the chicken is heated through. Stir in the cheese until melted. Serve.

**Susan Mitzner
Balaton, Minn.**

CHICKEN NOODLE SOUP WITH ROTISSERIE CHICKEN

Ingredients:

1 tbsp. vegetable oil
1 1/2 cups chopped carrots, (about 1/2-inch)
1 1/2 cups chopped celery, (about 1/2-inch)
1 cup chopped white onion, (about 1/2-inch)
1 tbsp. rotisserie chicken seasoning
4 cups chicken stock
4 cups medium egg noodles
2 cups chopped rotisserie chicken
1 tbsp. parsley flakes

Method

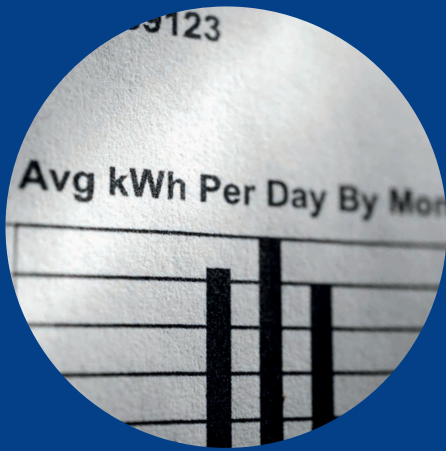
Heat vegetable oil in large saucepan on medium-high heat. Add carrots, celery and onion; cook and stir 8 to 10 minutes until softened and lightly browned. Stir in Seasoning. Cook 1 minute.

Add stock and egg noodles. Bring to boil. Reduce heat; simmer 8 to 10 minutes until noodles are just tender.

Gently stir in chicken and salt. Simmer 2 minutes longer. Remove from heat. Stir in parsley to serve.

McCormick.com

Please send your favorite recipes to your local electric cooperative (address found on Page 3). Each recipe printed will be entered into a drawing for a prize in December 2023. All entries must include your name, mailing address, phone number and cooperative name.



Monitor Energy Use

Sign up for SmartHub by visiting www.centralec.coop and clicking "Register to use SmartHub!" at the top of the page.



View energy usage details and billing history by downloading the SmartHub application on your tablet or mobile device.



2024 Electric Rate Adjustment

Central Electric Cooperative's rates remained the same from 2019 until 2023 when they were adjusted by 1 percent. Over that time, the cost of delivering reliable energy has risen substantially. Increasing wholesale electric rates and higher costs for equipment, inventory, and labor prompt the need for a rate adjustment.

The new rates take effect in January 2024 and will be reflected on billing statements received in February 2024.

Changes include an additional \$2 on the facility charge, which is used to help recover the cooperative's operating expenses, including the replacement of aging power lines, transformers, equipment, and customer service activities. The sub meter fee, which helps recoup the cost to purchase, read, and maintain sub meters, will also increase by \$2.

All rate classes are subject to adjustments in facility and energy charges. The impact of the adjustments on individual bills will vary for each member.

Questions?

Phone: 1-800-477-2892 or 1-605-996-7516

E-mail: billinggroup@centralec.coop

Website: www.centralec.coop

What is Changing in 2024?

The table below shows the rate comparison from 2023 to 2024 for farm and residential single-phase service and electric heat sub meters. Tools are available in the SmartHub app to help manage energy usage. To access SmartHub services, sign up at www.centralec.coop.

Service Type	2023 Base Charge	2023 Energy Usage Blocks	2023 Rate per kWh	2024 Base Charge	2024 Energy Usage Blocks	2024 Rate per kWh
Farm/Residential Single-Phase	\$61.45 Facility Charge	0 to 600 kWh 601-1200 kWh >1201 kWh	\$0.114 \$0.096 \$0.082	\$63.45 Facility Charge	0 to 900 kWh 901-1200 kWh >1200 kWh	\$0.121 \$0.096 \$0.087
Electric Heat Sub Meter	\$2 Sub Meter Charge	All kWh	\$0.056	\$4 Sub Meter Charge	All kWh	\$0.060

The facility charge will increase by \$2 per month for all rate classes. Energy charges will also be adjusted due to increases in wholesale power costs. The new rates take effect in January 2024 and will be reflected on billing statements received in February 2024.

Want \$10 Off Your Next Statement?



Postage is another rising cost your cooperative is facing, so Central Electric is offering an incentive to go paperless. Earn a one-time bill credit of \$5 by signing up for paperless statements, and another \$5 by signing up for automatic payments.

All of a member’s eligible accounts must be enrolled by April 1, 2024, to qualify. Each newly enrolled member is eligible for one \$5 to \$10 bill credit after conditions are met. Contact the billing department for more information at 1-800-477-2892.



Jewel Cave's walls glisten with a coating of calcite crystals coating that give this cave its unique name. Image credit: NPS

BENEATH THE BLACK HILLS

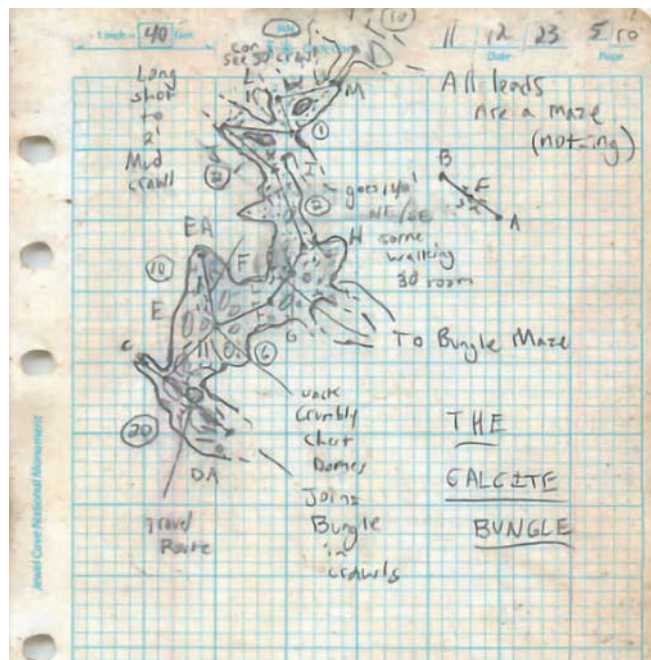
Charting Untrodden Miles in Jewel Cave

Frank Turner

frank.turner@sdrea.coop

In the depths of the Black Hills lies an immense domain of underground caves renowned for their untouched beauty, enticing tourists with the opportunity for stunning photography and expert-led tours. Digging a little deeper, however, reveals that many of these unsuspecting attractions are actually home to a vast network of rooms and passages where no human has ever set foot before. Jewel Cave National Monument, located west of Custer and celebrated for its unique, crystal calcite coating, is one such subterranean cavern that continues to be a frontier of exploration.

Jewel Cave has thousands of miles of unexplored passages, crawlways and chasms that await discovery, making it one of the largest cave systems in the world. The immensity of Jewel Cave and others like it in the Black Hills has inspired multiple



A field sketch from the four-day Veterans Day weekend expedition. Image credit: NPS

generations of ambitious cave explorers who have devoted years of their lives to mapping out new areas of these underground expanses.

Despite their efforts, only a small fraction of Jewel Cave has

been navigated and mapped, leading to new cave discoveries being recorded even now.

Recently, a group of National Park Service volunteer cave explorers, led by volunteer Chris Pelczarski, expanded the known limits of Jewel Cave in an expedition over Veterans Day weekend of this year.

In total, their journey lasted four days. Bringing only what they could carry, the small group of cavers wriggled through miles of passages without natural sunlight or ready supplies to ultimately be the first to step into what was previously untrodden terrain.

To achieve their goal, the volunteers tackled the 3-D maze that defines the Jewel Cave network, hiking and climbing steep underground terrain. Despite the challenge, Pelczarski said the ending discovery made the whole journey worthwhile. When discovering something new, the challenge pales in comparison.

“The experience of pushing the edge of something is very unique,” said Pelczarski. “When entering a new space, it weighs on you that it’s the first time that a human has ever interacted with that space. As explorers, we have an incredible amount of responsibility because we are the ones who share that story with others and set the tone of that space.”

In total, the explorers discovered and charted just over one mile of new passages during their Veterans Day expedition, uncovering new passages and even a distinctive split in the rock their group named ‘Fruit by the Foot,’ due to the volunteer group garnering a “fruitful yield” of discovery from the rock formation.

The broader work of these cavers has led to several breakthroughs over the years, including the discovery of Jewel Cave’s first cave lake, Hourglass Lake.

“In 2015, our explorers got to a point where the lowest part of the cave dipped into the Madison Aquifer. It was Jewel Cave’s first cave lake,” said Michael Wiles, Chief of Resource Management at Jewel Cave National Monument. “Since that initial discovery, 12 more lakes have been

found within Jewel Cave.”

With the possibility of discovery around every corner, Wiles regards volunteer explorers like Pelczarski as torchbearers in a continuing legacy created by the many cave explorers that came before them, including South Dakota caving legends Herb and Jan Conn and Wiles himself.

“Herb and Jan are icons in the Black Hills area and throughout the world because they were the first to document and map the cave back in 1959,” said Wiles. “They fell in love with the cave and it really captured their imagination.”

Together, Herb and Jan discovered the first 70 miles of Jewel Cave. Building from Herb and Jan’s initial discoveries, Wiles, with the help of volunteers like Pelczarski,

has been involved in the mapping of an additional 150 miles of cave since the Conns retired.

To date, 218.8 miles of Jewel Cave have been discovered. However, Wiles explained that barometric airflow studies indicate that the cave could be up to 14,000 miles long, and only 3% of the cave’s estimated total length has been mapped and discovered.

“Jewel Cave, for practical purposes, isn’t going to end,” said Wiles. “We know that the cave is hundreds if not thousands of miles long and that, alone, is exciting.”

With only a fraction of the total cave discovered, it’s evident that several years of cave discoveries lie ahead.



Volunteer cave explorer Dan Austin sketching a passage of Jewel Cave. Using coordinates to draw a survey line in the book, Austin draws the cave walls around the line to represent the cave walls around him, adding additional notes as needed. *Image credit: NPS*

Capital Credit Refunds

Central Electric Cooperative's board of directors recently approved more than \$1.09 million in capital credit general retirements, refunding past margins to cooperative members. The refunds include \$600,000 of Central Electric capital credits and \$499,398 of East River Electric Power Cooperative and Basin Electric Power Cooperative capital credits.

Revenue margins earned by the cooperative are allocated back to members as capital credits in proportion to the amount of electricity billed during the year. Because capital credits are based on electricity purchases, each refund amount is different.

Members with active Central Electric accounts received their

refund as a credit on November bills received in December.

Inactive members were mailed a check to the current address on file. Former co-op members should contact Central Electric to ensure capital credit payments are sent to the correct address. Please keep a copy of capital credit retirements for your records.

Capital credits are fundamental to the cooperative business model. They are a financial benefit for the membership and ensure strong financial standing.

If you have questions, contact the office at 1-800-477-2892 or visit www.centralelec.coop/capital-credits to view a list of frequently asked questions.



Turning Your Cents into Meaningful Change

Central Electric Cooperative is awarding \$13,800 in Operation Round-Up grants to support area projects. Through Operation Round-Up, participating cooperative members round up their monthly electric bill to the next whole dollar. Contributions are pooled together to support local causes through the grant program. Several cooperative employees also contribute to the fund.

Upon reviewing 32 applications, the Operation Round-Up board of trustees approved the following grant awards.

November 2023 Grant Awards:

- Abernathy Post 16 (Gann Valley) - \$1,000 for American Legion grave markers
- Bridgewater-Emery School Career & Technical Education Program - \$1,500 for welding equipment
- Canova Volunteer Fire Department - \$2,000 for hoses and equipment
- Friends of Miner County 4-H - \$500 for campground improvements
- Friends of Sanborn County 4-H - \$1,000 for tables and chairs
- Hanson County 4-H Leaders - \$1,300 for arena bleachers
- Hearts and Hammers of S.D. (Howard) - \$1,000 for housing improvements
- Helping Ends Meet Food Program (Chamberlain) - \$1,500 for youth nutrition
- Immanuel Lutheran Cemetery Association (Mount Vernon) - \$500 for a fence
- J&B 4-H Shooting Sports (Wessington Springs) - \$1,000 for equipment and supplies
- Sleep in Heavenly Peace (Mitchell) - \$2,500 for youth bed building program

Since 2015, Operation Round-Up has generated nearly \$200,000 to support local projects. A volunteer board of trustees made up of cooperative members awards the grants. Members of the board of trustees are Julie Dykstra of Stickney, Clarissa Glaus of Chamberlain, David Jorgenson of Mitchell, Amber Kolousek of Wessington Springs, LeAnn Moe of Alexandria, Tami Moore of Howard, Yvette Isburg of Fort Thompson, Dawna VanOverschelde of Letcher and cooperative director Merl Bechen of Mitchell.

Grant applications are accepted every six months. The next deadline is May 1, 2024. For more information, please call Central Electric at 1-800-477-2892 or visit www.centralelec.coop/operation-round-up.

Schley is Disconnecting from Work and Plugging into Retired Life

Tara Miller

Manager of Communications

Reflecting on 45 Years in the Business

Longtime employee Doug Schley is ready to disconnect from work and officially embrace retired life after 45 years in the electric industry.

Doug earned his degree in electronics from Mitchell Technical College in 1978. Since joining the cooperative in 1985, he has worked as an anode installer/corrosion technician, storage heater installer, plant accountant/purchasing agent and, most recently, metering system coordinator. Before that, he performed work for InterCounty Electric starting in 1980 when the Plano substation was built.



Since 1985, Doug has helped shape the cooperative into what it is today.

Doug said the electric industry has made significant strides since the 1980s.

“Automatic voltage ranging meters were a major improvement. Now meters can detect the proper voltage level and adjust as needed,” he said. “We used to have to match up the meter with the specific voltage, and if it was off, it caused a lot of problems. I don’t miss those days.” He added that automatic meter reading technology was another game changer for the electric industry,

eliminating the need to physically audit every meter across the service area.

Accomplishments

We could type an endless list of Doug’s accomplishments during his time here. He shared a few memories, some fond and some not-so-fond. One event he vividly recalls was a storm in 2005 that knocked out power for 17 days in some areas.

“The storm hit that night, and I was on the phone ordering materials at 10 p.m. Everything was here by 8 a.m. and we made things happen,” he said. “There were some long days, but we all worked together to make sure our members got power restored.”

Doug also took the lead in building one of the most robust metering communications networks in the region. At the time, Central Electric’s metering system was a model for many electric cooperatives across the country. He continued building on that success with the recent upgrade to Verizon meters. Since 2018, more than 10,000 Verizon meters have been installed, bringing Central Electric into the next generation of metering technology.

Family, Faith & Giving Back

Doug tied the knot with his wife Joy in June 1978. Together, they have three children and five grandchildren, with another on the way. Their daughters Laura, Jenna and Leah all live in Mitchell.

Doug is known to be a kind, friendly and compassionate person who cares about others (and his horses). When he’s not at work, he volunteers for Davison County Search and Rescue, generously sharing his time and talents to assist in looking for missing people. He has also been an active member of Zion Lutheran Church for the past 40 years.

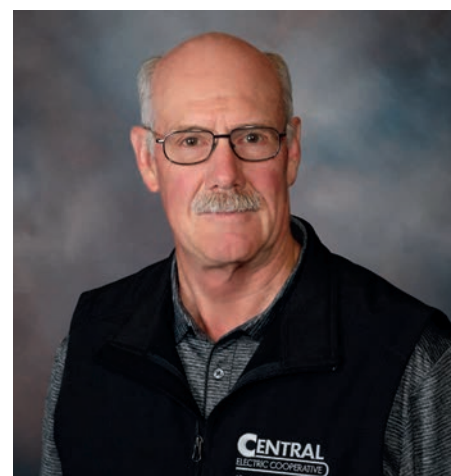


Doug led efforts to upgrade to the current Verizon metering system.

Looking Ahead

Doug’s last day of work is December 29, and Joy retired from her nursing career earlier this year, so the couple will definitely have more time on their hands in 2024. They plan to travel, visit family and spend more time with the grandkids.

The crew at Central Electric wishes Doug and Joy the very best as they officially plug into retired life.



After 38 years of service to the cooperative, Doug will retire on December 29, 2023.



The Sanford Underground Research Facility partners with more than 2,000 scientists from more than 200 global institutions and universities, enabling groundbreaking research across multiple disciplines.

STRIKING GOLD IN SCIENCE

Unearthing Research at the Sanford Underground Research Facility

Frank Turner

frank.turner@sdrea.coop

Years ago, the Homestake Mine in Lead, South Dakota, lured prospectors with the promise of riches during the gold rush era. Yet today, the site where miners once delved for gold now hosts scientists pursuing their own discoveries, not for gold, but for discoveries in particle physics and dark matter at the Sanford Underground Research Facility.

The mine's transformation into a

state-of-the-art research facility really began in 1970 when Raymond Davis Jr. began what is now known today as the Homestake experiment, a research project that would forever change the entire landscape of western South Dakota. Seeing beyond the precious metal, Davis envisioned the Homestake Mine as the perfect location to conduct research on the illusive neutrino particle. Conducting neutrino research underground was a crucial component of the project because the deep

environment of the mine shielded his experiments from cosmic rays, allowing for more accurate detection of neutrinos. While the Homestake Mine was still in operation, Davis worked among the bustle of mining activities to conduct research, which led to groundbreaking discovery in neutrino research and ultimately to a Nobel Prize in 2002.

As Davis concluded his groundbreaking neutrino research, a chapter was closing for the Homestake Mine. According to the facility's website, Homestake was North America's largest and deepest gold mine at the time of its closing, producing approximately 41 million ounces of gold in its 126-year lifetime. When the mine was decommissioned in 2002, it threatened to not only leave a vast cavern in the earth but also a significant void in the local economy. Davis's success, however, prompted South Dakota's leadership to step in at a critical moment and

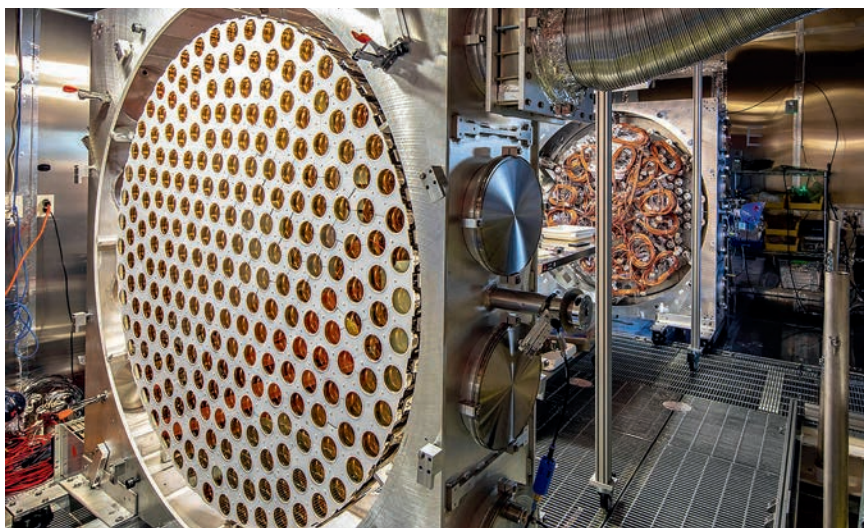
repurpose the mine into a bastion of scientific research.

Mike Ray, Media Relations Manager at Sanford Underground Research Facility, reflected on the state's response to the mine's closure. "Those in leadership at the time saw that this mine was closing and the terrible economic impact that the closure was going to have on the northern hills and this community, but they saw a light at the end of the tunnel," he said.

The light at the end of the tunnel became the Sanford Underground Research Facility. To advance one of South Dakota's most ambitious projects, the state secured a \$70 million donation from philanthropist T. Denny Sanford and a land donation from Barrick Gold Corporation, the mine's owner. The state then established the South Dakota Science and Technology Authority, which contributed an additional \$40 million to realize the project. These donations paved the way forward to begin construction on a space for some of the most advanced science projects ever made.

The herculean effort, Ray explained, was not only to mitigate the negative economic impact of the mine's closure but to create something even more impactful for South Dakota and its residents. Today, the Sanford Underground Research Facility collaborators include over 2,000 scientists from over 200 institutions and universities worldwide. It is expected to garner an estimated \$2 billion net economic impact in South Dakota by 2029.

Beyond its economic contributions, the lab holds potential for groundbreaking discoveries across various disciplines, including projects researching biology, geology, engineering or particle physics. Notably, the lab is currently home to LUX-ZEPLIN, the world's most sensitive dark matter detector and DUNE, the Deep



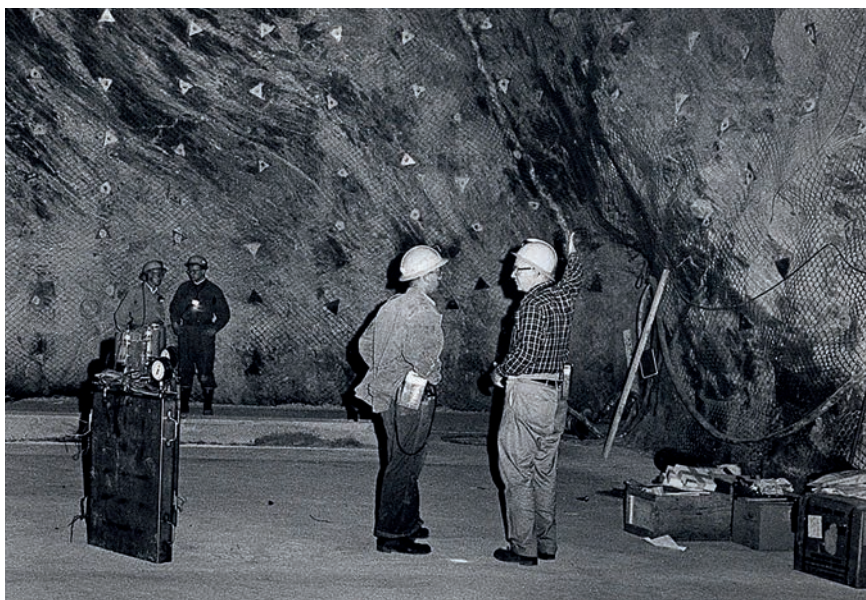
An array of the LUX-ZEPLIN, the world's most sensitive dark matter detector.
Photo Credit: Matthew Kapust, Sanford Underground Research Facility.

Underground Neutrino Experiment, among several other significant projects. While LUX-ZEPLIN and DUNE are distinct projects, both seek to provide fundamental insights into our current understanding of the laws of physics.

"There are so many examples of how fundamental research can take decades to lead to innovation," Ray said. "The beauty of this is that we don't always know where this research will

take us, but if we don't do this kind of exploration, we will never know the applications of these far-reaching projects."

Regardless of the outcome, the Sanford Underground Research Facility will continue to not only preserve the historic legacy of South Dakota's Homestake Mine, but also place South Dakota at the forefront of discovery and innovation for years to come.



A historic view of the Davis Cavern that hosted Ray Davis's Nobel Prize-winning solar neutrino experiment. The cavern has since been expanded and its walls have been coated with shotcrete, a type of spray-on concrete, to accommodate research on dark matter.
Photo Credit: Anna Davis, Sanford Underground Research Facility.



Shown in front of the True Dakotan building on Main Street in Wessington Springs are newspaper/print shop staff (left to right) Delia Atkinson, Office Manger; Kristi Hine, Editor/Publisher; Cathy Perry, Proofreader; shop dog Lincoln. Among the oldest buildings in Jerauld County, the building has always been a newspaper and/or print shop. Constructed in 1915, the True Dakotan recently underwent a complete renovation after a fire in June 2020.

SMALL TOWN NEWSPAPERS

Connecting Communities

Shannon Marvel

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Rural, small-town newspapers are an important cohesive element that keep communities together.

Many of South Dakota's community newspapers have faced economic difficulties, yet their dedication to their mission is what drives them to find innovative ways to persist.

According to South Dakota NewsMedia Association's Executive Director David Bordewyk, a combination of factors have made it difficult for small, community newspapers to thrive

as they once did in decades past.

"There's a lot of advertising that used to be in traditional media that has moved into a digital realm such as Google, Facebook and other platforms. That's been a huge disruption. Then there's the whole thing about the internet and how people consume information," Bordewyk said.

The pandemic had a major impact on the newspaper business and accelerated online advertising.

Inflation has also increased production and postal service costs considerably, which has made it tough for small, rural newspapers to balance their books and maintain profits.

"Almost all of our community newspapers rely on a postal service to deliver the newspaper to subscribers. And we've seen a 40 percent rise in postal rates over the last three years," Bordewyk said.

How do newspapers deal with that?

Some newspapers have done a good job of capturing that digital market, Bordewyk said. Others have really gotten aggressive at increasing their prices, with some having to increase subscription rates from \$40 to \$80 per year.

Regardless, there's value in a community newspaper.

Who else is going to consistently cover city council and county commission meetings, or local school activities and sports? Kristi Hine knows that value well.

Hine is the publisher and editor of the True Dakotan, a weekly newspaper that covers local happenings in Jerauld County, based in Wessington Springs.

"Newspapers play such an important role to keep communities together," Hine said.

"We cover everything from local government to high school sports to features. I just did a feature about these women who did a Christmas village exhibit at the county courthouse. It's peeling back the layers and truly telling the community's story. Without the local newspaper, there's no one to tell that story. Larger outlets may come cover a story if you have a tornado or your sports team is doing really well, but it's the community newspaper that'll be listening in on what the city council is going to say at their meeting," Hine said.

Community newspapers, in that sense, really are the eyes and ears for the community. The important goal of the community newspaper is to connect the community, Hine said. "Especially in this world when it's so easy to be on different sides of the spectrum. Community newspapers are the fabric that holds communities together, no matter what side of the aisle their readers land on," she said. "Especially in this world when it's so easy to be on different sides of the spectrum. Community newspapers are the fabric that keeps communities together, no matter what aisle their readers land on," she said.

Hine bought the True Dakotan eight years ago in March of 2015. Originally from Phoenix, Arizona, the newspaperwoman

has found herself enthralled with the small Jerauld County community.

Over the last eight years, Hine said she's seen more changes in the newspaper industry than her predecessor saw in the last 40 years.

"There's been a great deal of change," Hine said.

She's gotten more creative with advertising, using social media as a tool to promote local businesses. If a business is hosting an event or wants to promote a special sale, the business will do a Facebook live with Hine.

The True Dakotan also offers an online E-Edition and weekly newsletter, though the original print product is still the largest circulation.

Advertising and marketing aside, it all comes down to local news content.

"That's the driving force as we enter this evolution of newspapers. We're at the crux," Hine said.

To the northeast in Day County, the Reporter and Farmer newspaper is being led by Amanda (Fanger) Dulitz, a young reporter-turned-publisher, who recently purchased operation last year.

"Community newspapers are the lifeblood of a community. The strength of a community is reflected in the strength of their community newspaper. We're the bulletin board of the community. We're the cheerleaders of the community. We keep people connected," Dulitz said.

Dulitz found her passion for rural newspapers in South Dakota as soon as she picked up the reporter pad in 2007 after graduating from high school.

She worked at the Onida Watchman for a short time before heading east to Webster, where she took on the role as a news reporter for the Reporter and Farmer. Fast forward a couple decades and now Dulitz is the owner of the Reporter and Farmer.

She noted that costs were pretty stable at the newspaper for awhile, but seemed to sharply increase as soon as she signed the dotted line giving her ownership of the

operation.

"I'll probably have to take a look at my rates and lock in my rates for the next year. Everything is just going up, and it impacts the bottom line overall and you've got to do what you've got to do," she lamented.

But without the support of subscribers and advertisers, and really the entire community as a whole, the newspaper couldn't fulfill its purpose of keeping everyone on the same page and in the know.

The relationship between a community newspaper and the community itself is something Dulitz compares to a team of horses.

"The newspaper keeps everybody in an area knowing what's going on and pulling in the same direction. One horse can only pull so much, but if you put them together they can pull double.

That community unity – the newspaper – is what yokes people together and gets people pulling together," Dulitz said.

She understands that without the community support, there'd be no newspaper.

"We've got some of those readers when the paper gets back from the press on



Kristi Hine, editor/publisher, True Dakotan and Delia Atkinson, office manager

Friday – they're standing there waiting for the paper to be dropped off. They're the first ones in the door letting us know about some breaking news event that we haven't heard about yet," she said.

"Constantly, readers and advertisers let us know what we're doing right and what we're doing wrong. We need that. We need that mutual push and pull. We recognize that our readers and advertisers are key to our business and we appreciate it."



From left is Publisher Amanda (Fanger) Dulitz, circulation manager Pat Sass, graphic designer Megan Garry, writer Kevin Winter, sales representative Kirstin Ure (front), print tech Jessica Washenberger and proofreader Linda Holberg.



Jan. 26-27
Pro Snocross Races
 18 Seventy Six Dr.
 Deadwood, SD
 605-578-1876

To have your event listed on this page, send complete information, including date, event, place and contact to your local electric cooperative. Include your name, address and daytime telephone number. Information must be submitted at least eight weeks prior to your event. Please call ahead to confirm date, time and location of event.

JAN. 5
Granite Sports Fantastic Friday
 3 p.m.
 Hill City, SD

JAN. 6
Live on Stage
 High Country Guest Ranch
 Hill City, SD

JAN. 10
45th Annual Ranchers Workshop
 9 a.m.
 Sinte Gleska University Multi-Purpose Center
 Mission, SD

JAN. 12
Granite Sports Fantastic Friday
 3 p.m.
 Hill City, SD

JAN. 13
Knights of Columbus Bowling Tournament
 1 p.m.
 Meadowood Lanes
 Rapid City, SD

JAN. 20
Live on Stage
 High Country Guest Ranch
 Hill City, SD

JAN. 23
A Trip to Chile (Reservations Required)
 6:30 p.m.
 Mangiamo
 Hill City, SD

JAN. 25
A Trip to Chile (Reservations Required)
 5:30 p.m.
 Mangiamo
 Hill City, SD

JAN. 26
Granite Sports Fantastic Friday
 3 p.m.
 Hill City, SD

JAN. 26-27
Reliance Area Community Development 29th Annual Dinner Theater
 6 p.m.
 Reliance Legion Hall
 Reliance, SD

FEB. 3
Live On Stage
 High Country Guest Ranch
 Hill City, SD

FEB. 3
Lake Hendricks Fishing Derby
 11a.m.
 City Boat Landing
 Hendricks, MN

FEB. 10
Polar Bear Chili Cook-Off
 11a.m.
 Main Street
 Hill City, SD

FEB. 10
Tour de Chocolate
 Main Street
 Hill City, SD

FEB. 17
Live On Stage
 High Country Guest Ranch
 Hill City, SD

FEB. 18-20
MASC presents Disaster! the Musical
 Vesta Community Center
 Vesta, MN

FEB. 20
A Trip to Portugal
 6:30 p.m.
 Mangiamo
 Hill City, SD

FEB. 22
A Trip to Portugal
 6:30 p.m.
 Mangiamo
 Hill City, SD

FEB. 23-24
Women in Blue Jeans Conference
 Highland Conference Center
 Mitchell, SD

Note: Please make sure to call ahead to verify the event is still being held.